

If Iredale's search of the literature is accepted as exhaustive, this is the fifth recorded example of a chiton with a supernumerary valve (hypermerism).

LITERATURE

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LONGEVITY OF MITRA IN CAPTIVITY

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On August 11, 1932, Templeton H. Crocker and party dredged five specimens of a large black *Mitra* in $6\frac{1}{2}$ -14 fathoms in Santa Maria Bay, Lower California. The dredging station was number D-24-R and the lot has since been given the number 27,594 (C.A.S.). Three of these specimens were kept alive in tanks on board the ship and were brought to the Steinhart Aquarium in San Francisco. Two of them died very soon thereafter but the third lived until June 6, 1934. During this time it was kept in a small salt water tank with other marine life and supplied with circulating unfiltered sea water from a local source. No attempt was made to control the temperature of the water and it seems rather remarkable that a subtropical species should be able to exist under these conditions for so long a period of time. The animal was evidently fully adult when received and did not increase in size.

The species was recently described as *Mitra zaca* by Messrs. Strong, Hanna and Hertlein (Proc. Calif. Acad. Sci. ser 4, vol. 21, no. 10, p. 120, pl. 5, fig. 10), and the holotype is number 6061 (C.A.S.). One specimen has been deposited in the collection of Mr. Herbert N. Lowe. The species is unquestionably closely related to *Mitra swainsonii* Reeve, (Conch. Icon. Vol. 2, *Mitra*, sp. 4, pl. 1, fig. 4, August, 1844), dredged in mud, seven fathoms,

by Cuming in "Monte Christi, west Colombia," That species, however, is olive-brown in color instead of black and the columella is said to have four plaits. *M. zaca* has a trace of a fifth. Reeve's figure shows fairly strong spiral lines on the shoulder and on the base whereas in *zaca* they are uniformly fine all over except near the columella where they are slightly stronger.

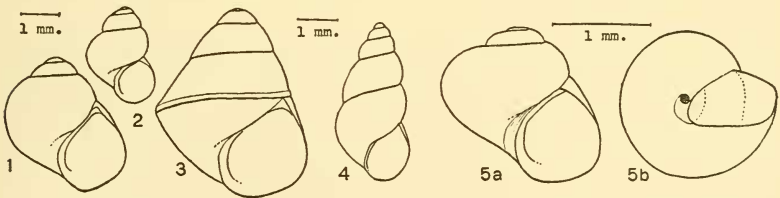
WESTERN AND SOUTHWESTERN AMNICOLIDAE AND A NEW HUMBOLDTIANA

BY H. A. PILSBRY

Potamopyrgus cheatumi, new species. Fig. 4.

The shell is imperforate, long-conic, brownish olive to grayish olive, the early whorls white by erosion of the surface. Surface rather dull, where unworn showing very weak lines of growth, usually scarcely visible. The whorls are strongly convex. The aperture is ovate, contained about three times in the length in large specimens, relatively larger in immature shells. The columella is slightly thickened, spreading a little in the umbilical region. Parietal callus thin, adnate. Length 3.75 mm., diam. 1.75 mm., aperture 1.3 mm.; $5\frac{1}{2}$ whorls.

Phantom Lake, near Toyahvale, Reeves Co., Texas. Type 163888 ANSP., collected by Prof. E. P. Cheatum.



This Hydrobia-like species is referred to *Potamopyrgus* for the reason that it is viviparous, an example opened containing several young with shells about 0.4 mm. in diameter, of $1\frac{2}{3}$ whorls. It is a far larger shell than *Paludestrina diaboli* P. & F., which moreover, is distinctly umbilicate. *Hydrobia seemanni* Ffd. is more similar, but it is distinct by the more slender shape and smaller mouth.

Cochliopa texana, new species. Figs. 5a, 5b.

The shell is minute, umbilicate, turbinate; olive to olive-brown, the first $1\frac{1}{2}$ whorls white or nearly so. Whorls $3\frac{1}{3}$, convex, the